

Kern Fan Groundwater Storage Project Update

Presentation to the California Water Commission
August 18, 2021



Project Overview



Project Highlights

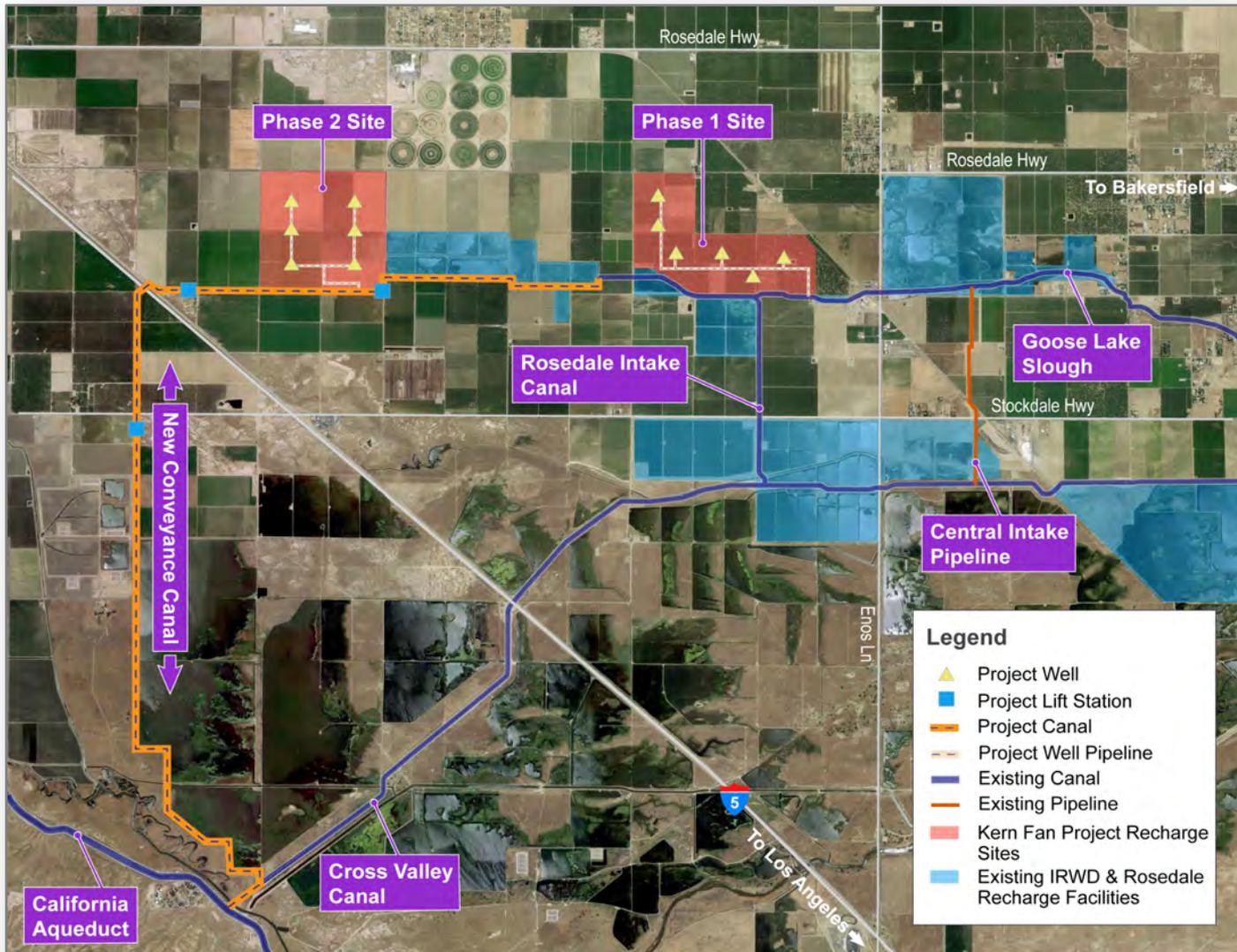
- Groundwater storage project to be implemented and operated by Groundwater Banking Joint Powers Authority
 - GBJPA jointly formed by IRWD and Rosedale in April 2020
- Stores water otherwise lost to the ocean
 - Article 21 water available after requests are met
- Improves flexibility in operation of State's water system
- Multiple public and non-public benefits
- Existing partnerships with State Water Project contractors
 - Kern County Water Agency
 - Dudley Ridge Water District

Kern Fan Groundwater Storage Project Components

- New Conveyance from California Aqueduct
 - New turnout with up to 500 cfs capacity
 - 10 mile canal/pipeline
 - 3 lift stations
- 1,050 Acres of Recharge Basins
 - Annual recharge capacity of 100,000 AF
- 12 Groundwater Recovery Wells
 - Annual recovery capacity of 50,000 AF



Preliminary Location of Proposed Project Facilities



Project Benefits: Public

California Delta

- Spring and Winter-run Chinook Salmon Survival
- Through exchanges, water stored in the Ecosystem Account would be used to alleviate stress on endangered and threatened species



Intermittent Wetland Habitat

- Central Valley is the most important waterfowl wintering area along the Pacific Flyway
- Water recharged on the Kern Fan Project during the winter months will provide temporary habitat during years when recharge activity occurs



Water for Emergency Response

- Extended Droughts and Delta levee failures

Project Benefits: Non-Public

Improved Groundwater Sustainability Within Kern County Sub-basin

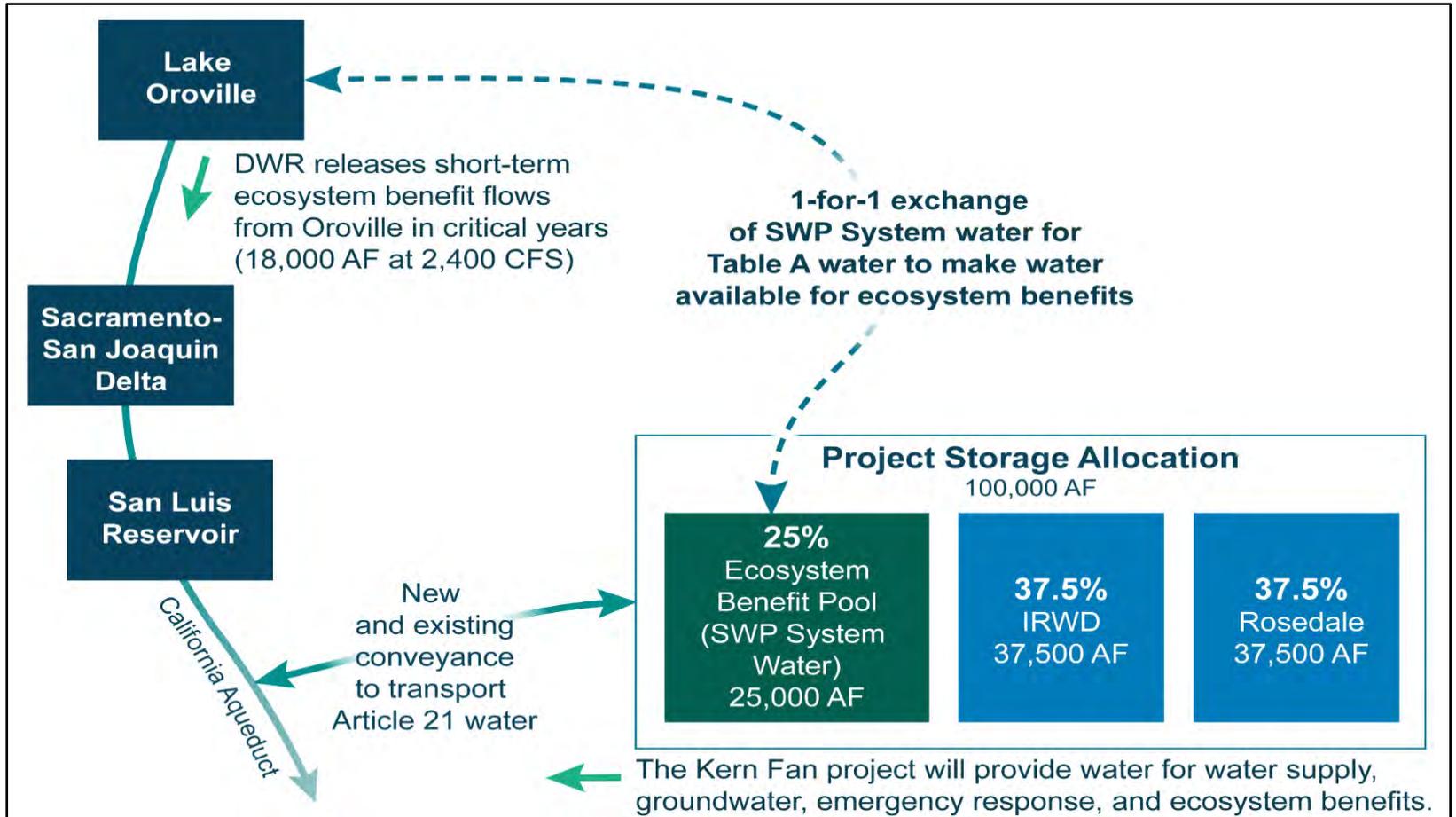
- By storing additional surface water underground in Kern County, the project would benefit groundwater levels in the Kern County Sub-basin
- Helps support groundwater sustainability efforts required by the Sustainable Groundwater Management Act

Additional Water Supply Reliability

- Provides Rosedale-Rio Bravo Water Storage District and Irvine Ranch Water District with increased, non-emergency water supply reliability during periods when other supply sources may be reduced or interrupted

Kern Fan Groundwater Storage Project

How it works:



Project Status



Meet Prop 1 Requirements by January 1, 2022

- Final Environmental Impact Report certified December 2020
- Non-public funding provided by IRWD and Rosedale
 - Funding commitments incorporated into Groundwater Banking Joint Powers Authority Agreement between IRWD and Rosedale, executed April 2020
 - Anticipate final funding agreement will be with the Groundwater Banking JPA
- Feasibility Report
 - Draft to CWC staff for review early September 2021
- California Water Commission meeting November 2021

Key Next Steps

- Approval of New Turnout on California Aqueduct – Summer 2022
 - Kern County Water Agency (KCWA) and DWR
 - Modeling completed by DWR
- Exchange Agreement with DWR and KCWA – Summer 2022
 - Agreement outline developed
- Public Benefits Agreements – Fall 2022
 - CDFW – Pulse Flow
 - DWR – Emergency Water Supply
- Permitting – 2022 -2024
- Final Funding Award - December 2022

Project Design

- Eleven Technical Memoranda completed July 2021 to guide design
 1. Project Phasing and Design Contractor Selection
 2. Conveyance Capacity Requirements
 3. Pipeline Requirements
 4. Pump Station Requirements
 5. Geotechnical Report Approved
 6. Canal Liner and Turnout Requirements
 7. Well Drilling and Equipping Requirements
 8. Right-Of-Way Acquisitions
 9. Recharge Basin Requirements
 10. Facility Operation and SCADA Requirements
 11. Engineer's Estimates
- Request for Proposals for design to be released by September 2021

Construction

2022

- Phase 1 Recharge Basins

2023

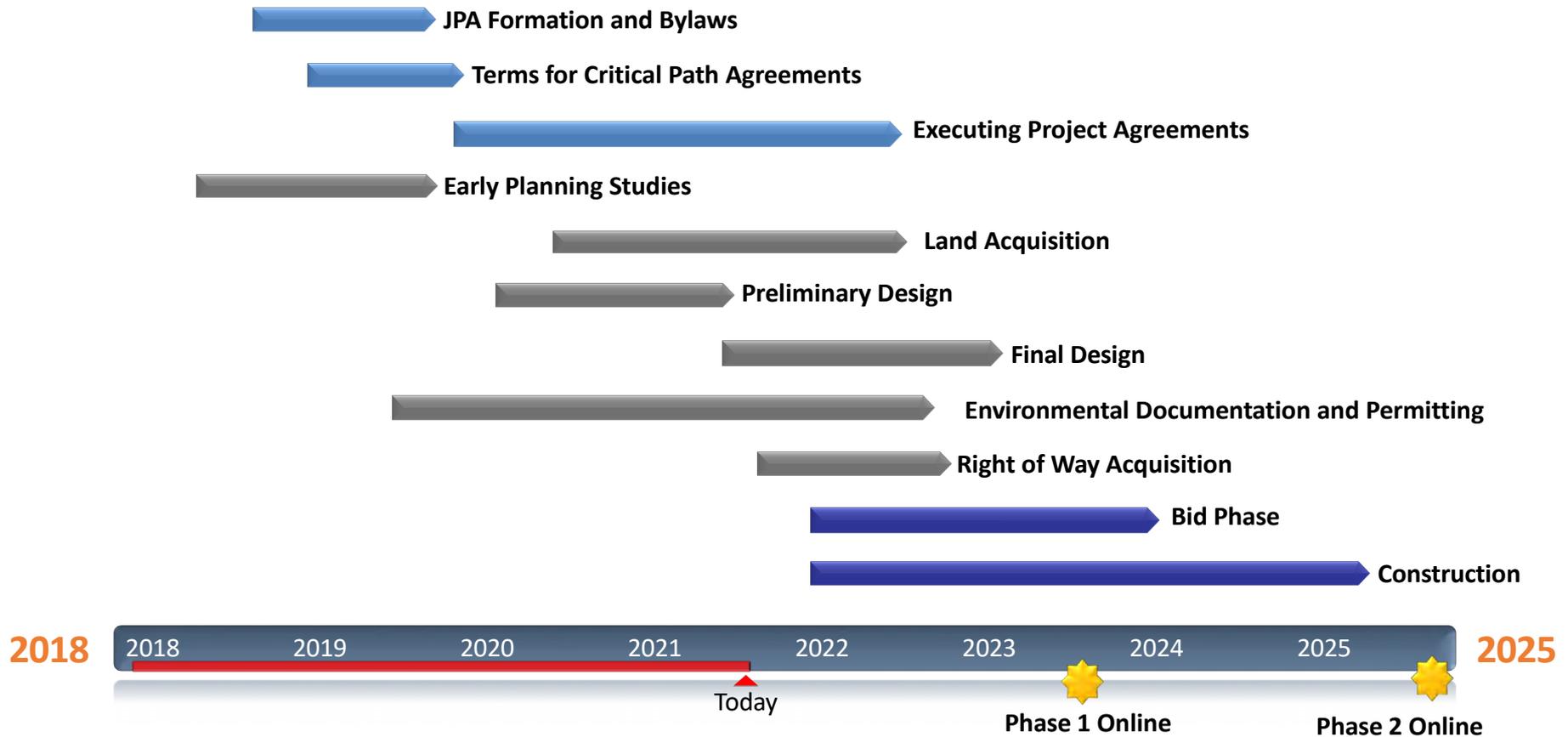
- Phase 1 Recovery Wells
- Phase 2 Recharge Basins
- Aqueduct Turnout
- **Phase 1 Operational**

2024 and 2025

- Conveyance Canal/Pipeline
- Phase 2 Recovery Wells
- **Phase 2 Operational**



Kern Fan Project Schedule



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